# UNITED STATES DISTRICT COURT NORTHERN DISTRICT OF OHIO EASTERN DIVISION

BENDIX COMMERCIAL VEHICLE	)		
SYSTEMS, LLC et al.,	)	Case No.	1:09-CV-0177
	)		
Plaintiffs,	)		
	)	JUDGE DONALD C. NUGENT	
v.	)		
	)		
WABCO AUTOMOTIVE CONTROL	)		
SYSTEMS, INC., et al.,	)	MEMORANDUM OPINION	
	)	AND ORDI	<u>ER</u>
Defendants.	)		

This matter is before the court for claim construction. The parties have filed written submissions in support of their respective interpretations of disputed terms (ECF # 122, 123, 124, 128, 130, 131), and the Court has heard oral arguments on the issue.

### FACTUAL AND PROCEDURAL HISTORY

Knorr-Bremse, a manufacturer of braking systems for commercial vehicles, is the owner of the RE '874 Patent, which is a reissue of U.S. Patent No. 5,927,445 (the "'445 Patent"). BCVS, a subsidiary of Knorr-Bremse, holds an exclusive license under the RE '874 Patent. Bendix Spicer holds a limited sublicense to the RE '874 Patent. Knorr-Bremse, BCVS, and Bendix Spicer allege that WABCO is manufacturing air disc brakes that infringe upon numerous claims of the RE '874 Patent.

On April 27, 1995, Knorr-Bremse filed its original Application No. DE 19515063 ("German application") entitled "Disc Brake for Vehicles, in Particular Road Vehicles" in the German Patent

and Trademark Office. On February 1, 1996, as allowed by the Patent Cooperation Treaty ("PCT"), Knorr-Bremse filed an identical international patent application, No. PCT/DE96/00193 (the "'193 application"), using the European Patent Office ("EPO") as the receiving office.

On October 27, 1997, Knorr-Bremse filed a request to commence the United States national stage of the PCT application, which was assigned Application No. 08/945,457 (the "'457 application") by the United States Patent and Trademark Office ("USPTO"). On November 24, 1998, the USPTO issued an Office Action rejecting Claim 1 of the '457 application under 35 U.S.C. § 112, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Knorr-Bremse regarded as the invention. On February 24, 1999, Knorr-Bremse filed an amendment to Claim 1 in response to the indefiniteness rejection.

On July 27, 1999, the '457 application issued as United States Patent No. 5,927,445 (the "'445 Patent") entitled "Disc Brake for Vehicles Having Insertable Actuator." Two years later, on July 27, 2001, Knorr-Bremse sought reissue, arguing that it had a right to broader claims than those contained in the '445 Patent. The reissue application did not include any changes to the eleven claims of the '445 Patent, but added new, broader, claims. On November, 15 2005, the USPTO issued RE '874 Patent. It included a total of 98 claims, including the eleven claims from the '445 Patent.

WABCO is a supplier of safety and control systems for commercial vehicles, including braking systems. Plaintiffs contend that WABCO has manufactured and/or sold products that infringe upon the '874 Patent. WABCO filed a Summary Judgment Motion contending that the '874 Patent was invalid under the Recapture Rule. (ECF #78). The Court looked at Claims 1-11 of the '874 Patent and determined that the prosecution history of these claims did not show that Knorr-

Bremse surrendered any subject matter when it amended those claims during the application process, and that no amendments were made in order to overcome prior art. For these reasons, the Court denied WABCO's motion, holding that the '874 Reissue Patent did not violate the Recapture Rule.

The issue is now before the Court on claim construction.

## **LEGAL STANDARD**

In order to determine the proper construction of disputed claims, the Court must look to several sources identified by the Patent Act, and by those Federal Courts that have interpreted and clarified the requirements of the Act. However, non-technical terms may not require elaborate interpretation. *See Brown v. 3M*, 265 F.3d 1349, 1352 (Fed. Cir. 2001). "The criterion [for claim construction] is whether the explanation aids the court and the jury in understanding the term as it is used in the claimed invention." *Funai Elec. Co. V. Daewoo Elecs. Corp.*, 616 F.3d 1357, 1366-67 (Fed. Cir. 2010).

"It is a 'bedrock principle' of patent law that 'the claims of a patent define the invention to which the patentee is entitled the right to exclude." *Philips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005)(*quoting Innova/Pure Water, Inc. v. Safari Water Filtration Systems, Inc.*, 381 F.3d 1111 (Fed. Cir. 2004); *see also Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)("we look to the words of the claims themselves . . . to define the scope of the patented invention"). Further, although Congress has required that a patent specification should include a segment wherein the inventor "shall particularly specify and point out the part, improvement, or combination, which he claims as his own invention or discovery," (Act of July 4, 1836, ch. 357, § 6, 5 Stat. 117, 119), the Supreme Court has long since made clear that the claims themselves are "of

primary importance, in the effort to ascertain precisely what it is that is patented." *Merrill v. Yeomans*, 94 U.S. 568, 570 (1876); *see also, e.g., White v. Dunbar*, 119 U.S. 47, 52 (1886); *Aro Mfg. Co. v. Convertible Top Replacement Co.*, 365 U.S. 336, 339 (1961).

In determining what the claims mean, the Federal Circuit has repeatedly held that the words of the claim are generally to be given their ordinary and customary meaning, and has defined "ordinary and customary meaning" as "the meaning that the term would have to a person of ordinary skill in the art in question" at the time of the effective filing date of the patent application. *Philips*, 415 F.3d at 1312-13 (citations omitted). A person of ordinary skill in the art is presumed to have read the claim not only in the context of the particular claim containing the disputed term, but in the context of the entire patent, including the specification, and with knowledge of the prosecution history. *Multiform Desiccants, Inc. v. Medzan, Ltd.*, 133 F.3d 1473, 1477 (Fed. Cir. 1998).

The specification is "the single best guide to the meaning of a disputed term," and the specification "acts as a dictionary when it expressly defines terms used in the claims or when it defines terms by implication." *Philips* at 1320 (*quoting Vitronics*, 90 F.3d at 1582; *Irdeto Access*, *Inc. v. Echostar Satellite Corp.*, 383 F.3d 1295, 1300 (Fed. Cir. 2004)). Section 112 of the Patent Act, 35 U.S.C. § 112, states that the specification

shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise and exact terms as to enable any person skilled in the art to which it pertains ... to make and use the same... [and] ... shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Although reference to the specification is potentially highly useful in construing or defining specific terms, or in providing context to terms within the individual claims, the Federal Circuit has warned courts against reading limitations from the specification, most especially from the description of

specific or preferred embodiments, into an individual claim. *Philips* at 1322; *Texas Digital Systems*, *Inc. v. Telegenix, Inc.*, 308 F.3d 1193 (Fed. Cir. 2002); *Nazomi Communications, Inc. v. ARM Holdings, PLC*, 403 F.3d 1364, 1369 (Fed. Cir. 2005); *Gemstar-TV Guide Int'l, Inc. v. ITC*, 383 F.3d 1352, 1366 (Fed. Cir. 2004). "The written description part of the specification itself does not delimit the right to exclude. That is the function and purpose of the claims." *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 980 (Fed. Cir. 1995)(en banc)(reaffirmed by *Philips* at 1312).

The Federal Circuit has also long held that the prosecution history may be relevant when attempting to interpret disputed terms in the claim language of a patent. The prosecution history is relevant in so far as it may provide some evidence as to how the inventor, and the United States Patent and Trademark Office ("PTO") understood the patent, and as to whether the inventor, by disclaiming a particular interpretation of the patent, "limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be." *Philips* at 1317 (citing *Vitronics*, 90 F.3d at 1582-83); *see also Chimie v. PPG Indus., Inc.*, 402 F.3d 1371, 1384 (Fed. Cir. 2005); *ZMI Corp. V. Cardiac Resuscitator Corp.*, 844 F.2d 1576, 1580 (Fed. Cir. 1988).

The language of the claim, the information contained in the specification, and the prosecution history available through the public notice requirements in the patent process are all considered intrinsic sources for determining the meaning of disputed terms in a patent claim. In addition, outside or extrinsic sources such as dictionaries, treatises, and expert testimony may all be considered to discern the meaning of disputed terms so long as they do not "contradict claim meaning that is unambiguous in light of the intrinsic evidence." *Philips* at 1324 (*citing Vitronics*, 90 F.3d at 1583-84; *Intel Corp. v. VIA Techs., Inc.*, 319 F.3d 1357, 1367 (Fed. Cir. 2003).

#### **ANALYSIS**

The majority of the disputed terms relate to the size of the opening for the housing unit, through which the brake application unit and/or its components must pass. In general, Plaintiffs seek to have the terms construed simply as they were written, and Defendants seek to impose a limitation requiring the opening to be large enough to receive a "fully assembled and operable brake application device or unit."

Although the language of some claims clearly and distinctly requires that the opening be large enough to receive a preassembled brake unit (see, e.g., Claims 1, 9), others specifically contradict this interpretation (see, e.g., Claim 29, which specifies that the opening be large enough to receive certain specified components of the brake application device). Further some claims are silent as to the size of the opening (see, e.g., Claim 12, which defines the size of the interior of the housing unit, but does not address the opening); and, some require an opening that will receive a brake application device, but do not specify whether the device must be preassembled prior to insertion (see, e.g., Claim 13, which requires the opening be large enough to "receive the rotary lever actuated device").

Despite these distinct differences in the descriptions contained in each claim, WABCO contends that the patent specification limits the claim language through its general summary of the invention, and the description of the preferred embodiments of the invention. However, the general description of the problem to be solved by the patent contains no such limitation or restriction, and the description of the preferred embodiment is not to be construed as a limitation on the scope of claims that are otherwise unambiguous. *See, e.g., Philips* at 1322; *Texas Digital Systems, Inc. v. Telegenix, Inc.*, 308 F.3d 1193 (Fed. Cir. 2002); *Nazomi Communications, Inc. v. ARM Holdings*,

PLC, 403 F.3d 1364, 1369 (Fed. Cir. 2005); Gemstar-TV Guide Int'l, Inc. v. ITC, 383 F.3d 1352, 1366 (Fed. Cir. 2004). "The written description part of the specification itself does not delimit the right to exclude. That is the function and purpose of the claims." Markman v. Westview Instruments, Inc., 52 F.3d 967, 980 (Fed. Cir. 1995)(en banc)(reaffirmed by Philips at 1312).

"The specification must teach and enable all the claims," however, just because the written description discusses particular uses or formations for purposes of some of the claims, this does not mean those uses or formations are intended to apply to all claims. *See Philips* at 1325. In other words just because the general description in the specification makes clear that the invention envisions a component that serves a particular function, or takes a particular form, it does not necessarily imply that the component must be so used or so formed in all of the embodiments of all of the claims. *Id*.

In this case, although the preferred embodiment of the patent would include a front opening large enough to insert a preassembled brake unit, this does not imply that *every* embodiment of the invention, must include a front opening large enough to insert a preassembled brake unit. This is especially true when the clear language of some claims specifically requires the opening to be large enough for the insertion of a preassembled brake unit, but the clear language of several other claims specify only that opening must be large enough to insert certain individually named components of the brake unit. Further, although the specification indicates that preassembly of the brake unit is preferred and will avoid certain potential problems in the assembly of the product, the primary focus of the patent is to address different problems "concerning the screwed connection, the stability and sealing" that may occur when "the brake response forces are introduced in a rearward manner into the screwed-on housing section." ('874 Patent, ECF #84-6).

The fact that the specification sets forth multiple objectives, or problems to be solved by the patent, not limited to the ability to insert a preassembled brake unit into every product, weighs in favor of a finding that the size of the opening should not be uniformly restricted without regard to the distinctions made in each of the separate claims. "[T]he fact that a patent asserts that an invention achieves several objectives does not require that each of the claims be construed as limited to structures that are capable of achieving all of the objectives." *Liebel-Flarsheim Co. v. Medrad*, *Inc.*, 358 F.3d 898, 908 (Fed. Cir. 2004); *see also Resonate Inc. v. Alton Websystems, Inc.*, 338 F.3d 1360, 1367 (Fed. Cir. 2003).

This Court has previously held that the '874 Patent does not actually require the insertion of a preassembled brake application unit, although Claim 1, as written, requires the opening to be large enough to receive a preassembled brake application unit. (ECF #100). If the '874 Patent does not require that the brake application unit be preassembled prior to insertion, it is difficult to discern how it would have to require that the opening to the housing unit be large enough to accommodate a preassembled brake application unit, except in those claims in which such a limitation is specifically and unambiguously included in the claim language.

The description of the technology in the Court's previous opinion indicated that the '874 Patent discloses an improved disk brake containing a caliper with an opening facing the brake disk that is "large enough to insert the brake application unit, as a preassembled unit, into the caliper." (ECF #100). That opinion, however, was limited to the technology set forth in Claims 1-11, which were the only claims considered at the time, and specifically, to the language used in Claims 1 and 9, which dictate that for the purposes of those claims, the application unit must be "insertable as

preassembled unit into the caliper through the opening...." (ECF #100; '874 Patent, ECF #84-6). It has no bearing on the size of the opening required in other claims of the '874 Patent.

WABCO also argues that the prosecution history of the '874 Patent dictates that the opening in question be large enough to receive a "fully assembled and operable brake application device or unit." The Court finds no support for this proposition in the relevant prosecution history of the '874 Patent.

On April 27, 1995, Knorr-Bremse filed its original Application No. DE 19515063 ("German application") entitled "Disc Brake for Vehicles, in Particular Road Vehicles" in the German Patent and Trademark Office. On February 1, 1996, as allowed by the Patent Cooperation Treaty ("PCT"), Knorr-Bremse filed an identical international patent application, No. PCT/DE96/00193 (the "'193 application"), using the European Patent Office ("EPO") as the receiving office.

The EPO, acting in its capacity as the PCT International Preliminary Examining Authority ("EPO Examining Authority"), determined in a written opinion that the original patent application claims were not patentable as being obvious over the prior art. In a letter dated June 5, 1997, Knorr-Bremse submitted new Claims 1-6 on replacement sheets (also called annexes) in response to the EPO Examining Authority's written opinion. In support of the new claims, Knorr-Bremse made the following statements:

It is of substantial importance that the brake application unit can be introduced as a pre-assembled unit . . . . The substance of the invention therefore lies in the fact that the brake application unit is joined together with any desired means . . . in such a way that it can be introduced as a whole, and therefore not individual components, through the opening facing the brake disk. Accordingly, the teaching of the present invention is directed toward the "pre-assembled" unit in its entirety and less toward the specific structural means of achieving pre-assembly.

(ECF # 78-44). The annexes last appeared as an attachment to the International Preliminary Examination Report ("IPER") issued by the EPO Examining Authority on August 1, 1997. The IPER stated that the new claims in the annexes were, as a general matter, patentable. In addition, the IPER stated the following:

1. The closest prior art is represented by FR-A-2 306 372 which discloses a disc brake with an integral brake caliper whose brake application unit . . . has to be introduced into the brake caliper in individual parts via an additional side opening. An additional opening of this type should be avoided for stability reasons.

Therefore, claim 1 *proposes* introducing the brake application unit as a *pre-assembled unit* into the brake caliper opening opposite the brake disc.

2. Claims 2 to 6 concern advantageous configurations of the disc brake as per claim 1. For reasons of clarity and clear delimitation over the closest prior art, claim 1 should state clearly that the size of the brake caliper opening opposite the brake disc is such that the pre-assembled brake application unit *can be introduced* through this opening.

At present, the characterizing part of claim 1 merely describes the effect to be achieved. (ECF # 84-22) (emphasis added).

On October 27, 1997, Knorr-Bremse filed a request to commence the United States national stage of the PCT application, which was assigned Application No. 08/945,457 (the "'457 application") by the United States Patent and Trademark Office ("USPTO"). The filing included an English language translation of the German application and an English language translation of the IPER, but not a translation of the annexes containing the new claims. Rather, Knorr-Bremse specifically requested that the PCT International Bureau issue its English translation of the IPER without annexes. Instead, in the transmittal letter to the USPTO, Knorr-Bremse noted: "APPLICANT WISHES THAT THE ANNEXES TO THE INTERNATIONAL PRELIMINARY EXAMINATION REPORT REPLACE THE APPROPRIATE PAGES OF THE CLAIMS AS

FILED." Notwithstanding that statement, Knorr-Bremse did not mark the appropriate boxes in the transmittal letter indicating that any amendments to the original claims were to be included in the application to the USPTO. Knorr-Bremse made a preliminary amendment concerning the original claims of the German application, but never addressed the claims contained within the annexes.

WABCO's bases its arguments on the statements made in support of the new claims, and the documents filed in support of those new claims, in the annexes attached to the PCT application for the '193 application. These annexes carry little or no weight in our analysis of the meaning of the claim language in the United States '874 Patent, because an English language translation of the annexes was not included as a part of the United States national stage application. As a matter of law this results in a cancellation of the amendments. 35 U.S.C. § 371(d). Further, as a practical matter, the annexes, even if included in the U.S. patent application, would have been in German, and would not have been accessible as a reference to a person of ordinary skill in the art reviewing the U.S. patent application, or to the USPTO. Therefore, any statements made by Knorr-Bremse to the EPO in support of the new claims are irrelevant to our consideration of the meaning and scope of the claim in the United States '874 Patent.

There is no evidence in the prosecution history of the United States '874 Patent that would lead a person of ordinary skill in the art to believe that every claim in the patent requires the same size opening, or that it requires the opening to be "sufficiently sized and large enough to receive as one unit a fully assembled and operable brake application device or unit."

Except as noted below, the language of the claims is generally self-explanatory and clear, and does not need any additional construction by the Court. The information contained in the specification and the U.S. prosecution history does not expressly define terms used in the claims, nor

does it alter the common meaning of those terms either directly or by implication. *See, Philips* at 1320 (*quoting Vitronics*, 90 F.3d at 1582; *Irdeto Access, Inc. v. Echostar Satellite Corp.*, 383 F.3d 1295, 1300 (Fed. Cir. 2004)). Further, the limitations WABCO seeks to import from the specification arise only in the description of the preferred embodiment of the invention, which is not supposed to be construed as a limitation on the scope of the individual claims.

It is, therefore, not appropriate to adopt the limitations and restrictions suggested by WABCO's construction of the claims relating to the size of the housing opening, or relating to the preassembly of the brake application device. Where such restrictions are warranted, they are clearly incorporated into the actual language of the claims.

### CONCLUSION

For the reasons set forth above, the Court adopts the agreed-upon construction of the terms set forth in Joint Claim Construction and Prehearing Statement (ECF #131).

The following claim terms shall be assigned Plaintiffs' Proposed Construction as set forth in Exhibit A of the Joint Claim Construction and Prehearing Statement. (ECF #131-1):

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"first opening" (Claims 78, 82)
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<sup>&</sup>quot;brake application device" (Claims 29, 78)

<sup>&</sup>quot;brake application unit" (Claims 1, 9)

<sup>&</sup>quot;application unit" (Claims 1, 2)

<sup>&</sup>quot;brake application unit with a rotary lever" (Claim 9)

<sup>&</sup>quot;caliper" (Claims 1, 2, 9, 12, 13, 22, 25, 28, 29, 31, 41, 43, 44, 54, 56, 57, 63)

<sup>&</sup>quot;housing section" (Claims 12, 13, 22, 25, 28, 29, 31, 33, 35, 63, 64)

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"no-force transmission takes place within the caliper by way of screwed connectors placed in

tension" (Claims 54, 56, 57)

"pneumatic disk brake" (Claim 78)

"pneumatic brake" (Claim 29)

"operating cylinder" (Claims 1, 12, 29, 37, 39, 40)

"rotary lever" (Claims 1, 9, 12, 29, 37, 39, 40, 78, 81)

"rotary lever actuated application device" (Claims 12, 13, 25, 28)

"the opening" – (Claims 1(b), 2,13,25,28)

"caliper opening" – (Claims 9, 10)

"sealingly closed" – (Claim 82)

The term "pneumatic air disk brake" shall be assigned Defendant's Proposed Construction as

set forth in Exhibit A of the Joint Claim Construction and Prehearing Statement. (ECF #131-1).

The Court finds that the remaining terms should be construed according to their ordinary and

customary meaning without imposing any limitations or restrictions not specifically included in the

claim language itself. Further explanation is not necessary to aid the court or the jury in

understanding these terms as they are used in the claimed invention. Trial is set for Monday,

September 12, 2011. IT IS SO ORDERED.

/s/ Donald C. Nugent

DONALD C. NUGENT

UNITED STATES DISTRICT JUDGE

Date: May 23, 2011

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